

REMARKS

This application has been carefully reviewed in view of the above-referenced Office Action. The undersigned has reviewed the Examiner's position and the claims and respectfully submits that the Office Action is in error. This amendment accompanies an RCE in order to present amendments that place the application in clear condition for allowance or appeal. In view of imminent rule changes that limit the number of continuations, Applicant elects to file an RCE in this case prior to the Nov. 1, 2007 effective date of the new rules to assure that the claims are in the best possible condition for appeal. Reconsideration is requested in view of the prior and following remarks.

Applicant's Claims

Certain of the claims have been cancelled or amended without prejudice in order to more explicitly focus the claims for appeal.

The claims as presented above have been amended to more explicitly call out the features that naturally flow from the claims so as to highlight the features of the claims that clearly distinguish over the cited art. The Examiner's attention is directed toward Fig. 6 and Fig. 7 and the portion of the specification entitled "Dynamic Composition Pre-Encryption" starting at page 21. The undersigned encourages the Examiner to take a careful review of this section in order to understand the dramatic impact on storage that the present claims produce in a selectively multiple encrypted system for providing VOD. In this section, the advantages and distinctions of the claimed arrangement are detailed, and can be briefly summarized as follows:

In conventional VOD systems, two files are maintained with just I frames (one in reverse order) which are used to facilitate fast forward and fast reverse trick play functions. A third file is maintained that contains a complete copy of the content. If one introduces the concept of multiple selective encryption into a VOD system, storage issues become far more complex. (None of the art is believed to have addressed this need in any manner.) Using conventional architecture and extending it to a selective multiple encryption arrangement in a VOD environment each movie would require at least two trick play files, a normal play file and multiple encryption files (at least one for each encryption system and possibly more to facilitate

trick play). None of the cited art addresses these issues which result in substantial increases in storage requirements to support a transition to multiple selective encryption in VOD (to support multiple vendors of set top boxes with incompatible encryption).

In the claimed embodiments, by selection of packets for encryption to be I frames, storage of a separate set of encrypted content for each encryption method is unnecessary since the trick play files can serve both functions. This segregation of the content is claimed in the claims and is neither taught nor suggested in the cited references. As noted on page 23, the storage arrangement of Applicant saves enough storage to support an additional conditional access encryption format without any storage penalty whatsoever. This can amount to a dramatic savings in storage devices at the service provider headend.

None of the cited art addresses this problem and none provide any solution, much less a solution in the form of the storage arrangement provided by Applicant. Neither Colligan, Nardone nor Carny provide a structure which results in this substantial savings of storage in a VOD system usable with multiple selective encryption as claimed.

Regarding the Rejections under 35 U.S.C. §103

The present Office Action rejects the claims based upon the combination of Colligan, Nardone and Carny, all of record. Applicants reiterate all the prior arguments from the prior Office Action response and of the pre-appeal brief remarks. The references under consideration are discussed briefly below.

The Colligan Reference

The Colligan reference is the primary reference used in all rejections in this action. In particular, the process described in col. 7, lines 35-59 describing the process of Fig. 7, and col. 11, lines 48-57 are pointed out as teaching portions of Applicants' claims. Applicant notes that Colligan is silent as to the exact storage arrangement used for storage of the content.

The undersigned reiterates by reference thereto the prior arguments that the process of Fig. 7, as described in Colligan, is a "multi-layer encryption process", and is unrelated to the problems of VOD in a selective multiple encryption environment.

The Nardone Reference

The Nardone Reference is used to illustrate selection of I frames for selective encryption in a single stream which is selectively encrypted using one encryption algorithm. But in fact, Nardone only teaches selection of BTUs (which may be an I frame) for single selective encryption. Nardone is also devoid of relevant teachings related to the problems of VOD in a selective multiple encryption environment.

The Carny Reference

Carny stores multiple encrypted copies of the content, encrypted under multiple keys, so that meta-key encrypted content can be rapidly assembled for delivery to a recipient. However, Carny never assembles a copy of the content based upon the decryption capabilities of the recipient. If Carny's teachings are followed, more storage – not less – would be required in a selectively multiple encrypted VOD system. Carny provides no teachings of value in addressing Applicant's problem.

The References Collectively

None of the references individually or collectively teach or suggest an advantageous storage arrangement that permits storage of content to facilitate both normal and trick play of VOD content in a multiple selective encryption environment that provides the storage efficiencies of Applicants' system. The claims have been amended to explicitly call out how the storage arrangements are used in the various modes of operation for a receiver that is compatible with either of the two encryption systems. Moreover, it is noted that certain of the claims further call out making a determination as to which of the two encryption systems are utilized and selection of the various file arrangements to match the decryption capabilities of the receiver. None of the cited art individually or collectively teaches or suggests this feature.

Interview Request

In the event the Examiner feels that the current arguments do not address all rejections fully and render the claims patentable, the undersigned respectfully requests the courtesy of an interview, either in person or telephonic at the Examiner's convenience. This request has been made previously and has gone without response. The undersigned can be reached at the telephone number below and sincerely wishes to avoid the necessity of a costly and unnecessary appeal of this matter.

Respectfully submitted,

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